

**Safety Data Sheet**

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification**Product Name** GLUTATHIONE (L) REDUCED EP (PHARMA GRADE)**Commercial Name** N/A**Product Use** Pharmaceutical nutraceutical, food and beverage**Restrictions On Use** N/A**Product Code** 30-5100**Company** PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300**Section 2: Hazard(s) Identification****OSHA Haz Com:** Not hazardous according to REGULATION (EC) No 1272/2008 Classification according to EU Directives**CFR 1910.1200** 67/548/EEC or 1999/45/EC**Signal Word** NON-HAZARDOUS**Hazard Statement(s)** N/A**Pictogram(s) or Symbol(s)****Precautionary Statement(s):****Prevention** N/A**Response** N/A**Storage** N/A**Disposal** N/A**Section 3: Composition/Information on Ingredients****Substance/Mixture** Substance**Components** L-Glutathione reduced**% By Weight** >=98%**CAS#** 70-18-8**Molecular Weight** 307.32**Chemical Formula** C₁₀H₁₇N₃O₆S**Synonym(s)** N/A**Mixtures**

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
L-Glutathione reduced	70-18-8	>=98%	N/A	N/A

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Section 4: First-Aid Measures

Inhalation	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Skin Contact	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes
Eye Contact	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Ingestion	Get medical aid. Wash mouth out with water.
Symptoms/Effects	
Acute	N/A
Delayed	N/A
Immediate Medical Attention	N/A

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Use water spray, dry chemical, carbon dioxide, or chemical foam.

Unsuitable Extinguishing Media

N/A

Products of Combustion

N/A

Firefighters Special Equipment and Precautions

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Section 6: Accidental Release Measures

Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

Section 7: Handling and Storage

Handling: Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Storage: Store in a tightly closed container in cool, dry area, recommend storage temperature 25°C±2°C.

Section 8: Exposure Controls/Personal Protection

Exposure Limits	N/A
Engineering Controls	Use adequate ventilation to keep airborne concentrations low.
Personal Protection	Eyes: Wear chemical goggles Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure. Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator When necessary.

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Section 9: Physical and Chemical Properties

Appearance	White Crystalline Powder		
Odor	Odorless		
Odor Threshold	N/A		
Melting Point	183°C~187 °C	pH	~3 (1% aq. sol.)
Freezing Point	N/A	Vapor Pressure	N/A
Boiling Point/Range	N/A	Vapor Density	N/A
Decomposition temperature	N/A	Viscosity	N/A
Partition Coefficient: n-octanol/water	N/A	Evaporation Rate	N/A
Flash Point	N/A	Autoignition temperature	N/A
Flammability	N/A	Flammability or Explosive Limits:	
		Lower	N/A
		Upper	N/A
Solubility(ies)	Freely soluble in water		
Other	N/A		

Section 10: Stability and Reactivity

Reactivity	The substance is stable under normal storage and handling conditions.
Chemical Stability	Stable at room temperature in closed containers under normal storage and handling conditions.
Hazardous Polymerization	No dangerous reactions known.
Conditions to Avoid	Incompatible materials Avoid extreme heat. Avoid direct sunlight.
Incompatible Materials	Strong-oxidizing agents
Hazardous Decomposition Products	Carbon oxides, nitrogen oxides (NOx), Sulphur oxides.

Section 11: Toxicological Information

RTECS	RTECS#:MC0556000
Acute Toxicity	
LD50/LC50: CAS# 70-18-8: Oral, mouse: LD50 = 5000 mg/kg.	
Skin Corrosion/Irritation	
N/A	
Serious Eye Damage/Irritation	
N/A	
Respiratory or Skin Sensitization	
N/A	
Germ Cell Mutagenicity	
N/A	
Carcinogenicity	
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.	
Reproductive Toxicity	
N/A	
Routes of Entry	
N/A	

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Symptoms Related to Exposure

N/A

Potential Health Effects

N/A

Target Organ(s) N/A**Section 12: Ecological Information****Ecotoxicity**

N/A

Persistence and Degradability

N/A

Bioaccumulative Potential

N/A

Mobility in Soil

N/A

Other Adverse Effects

N/A

Section 13: Disposal Considerations**Waste Disposal**

Dispose of in a manner consistent with federal, state, and local regulations.

Disposal of Container

N/A

Other Considerations

N/A

Section 14: Transport Information**DOT Classification**

IATA: Glutathione is not regulated as dangerous goods. IMO: Glutathione is not regulated as dangerous goods. RID/ADR: Glutathione is not regulated as dangerous goods.

Section 15: Regulatory Information**Regulations**

European/International Regulations: European Labeling in Accordance with EC Directives Hazard Symbols: Not available Risk Phrases: Safety Phrases: S 24/25 Avoid contact with skin and eyes. WGK (Water Danger/Protection) CAS# 70-18-8: 1 United Kingdom Occupational Exposure Limits United Kingdom Maximum Exposure Limits Canada CAS# 70-18-8 is listed on Canada's DSL List. CAS# 70-18-8 is not listed on Canada's Ingredient Disclosure List. Exposure Limits US FEDERAL TSCA CAS# 70-18-8 is listed on the TSCA inventory

Other

N/A

Section 16: Other Information

N/A